Attachment D

California Energy Commission
Air Quality Self-Certification Checklist for Simple-Cycle Gas Turbine Generation Units

License Application for:
[X] New Emissions Unit(s) at a New Stationary Source
[ ] New Emissions Unit(s) at an Existing Stationary Source

DISTRICT:	DATE:
South Coast Air Quality Management District	June 22, 2001

FACILITY INFORMATION

License to be Issued to: CENCO Electric Company		
Mailing Address: P.O. Box 2108		
City: Santa Fe Springs	State: CA	Zip Code: 90670-0180
Address Where Equipment Will be Operated: 12345 Lakeland Road		
City: Santa Fe Springs	State: CA	Zip Code: 90670
Nature of Business: Electric Power Generation	SIC Code:	
Facility Contact Person: Ed Gienger	Phone Number: (562) 944-6111	
	Fax Number: (562) 944-8522	
	Email: Egienger@cencorefining.com	
Application Information Contact Person (if different from above): June Christman	Phone Number: (562) 944-6111	
	Fax Number: (562) 903-8931	
	Email: Jchristman@cencorefining.com	
Will the facility be under contract to sell its power within California? [X] Yes [ ] No If Yes, state the entity contracted with and the percentage of power that will be sold: Department of Water Resources – 6.8%		
What is the maximum total electrical output of the new power generation equipment at International Standards Organization (ISO) conditions? 49.5 MW		
Estimated construction start date: 07-23-01 Estimated completion date: 09-30-01		
Length of commissioning period (from date of initial startup): Approximately two weeks		

NEW EQUIPMENT INFORMATION

TURBINE #1	If multiple identical units, indicate number of units of this type: Two		
	Power Output	Nominal: 24.7 MW	Maximum: 27.7 MW
	Manufacturer: Pratt & Whitney		
	Model: FT8		
	Maximum Heat Input (based on HHV of fuel): 255 MMBtu/hr		
TURBINE #2	If multiple identical units, indicate number of units of this type: _____		
	Power Output	Nominal: MW	Maximum: MW
	Manufacturer:		
	Model:		
	Maximum Heat Input (based on HHV of fuel): MMBtu/hr		

Suggested Best Available Control Technology (BACT)		**Emission Level**	**Control Technology**
	NOx	5 ppmv @ 15% O_2 (1-hr rolling avg)	Selective catalytic reduction or equiv.
	CO	6 ppmv @ 15% O_2 (1-hr rolling avg)	Oxidation catalyst or equivalent device
	VOC	2 ppmv @ 15% O_2 (1-hr rolling avg)	Oxidation catalyst or equivalent device
	PM_{10}	Emission limit corresponding to natural gas firing (PUC quality natural gas)	Natural gas firing (PUC quality natural gas)
	SO_2	Emission limit corresponding to natural gas firing (PUC quality natural gas)	Natural gas firing (PUC quality natural gas)
	NH_3	10 ppmv @ 15% O_2 (1-hr rolling avg)	

Selective Catalytic Reduction Information, if applicable	**If not indicated, please specify units of measurement:**			
	Ammonia Storage Tank(s):	Tank type: Fixed roof, cylindrical		
		Number of tanks: One		
		Tank size: 12,000 gallons		
		Reactant type: [ ] Anhydrous ammonia [X] Aqueous ammonia [ ] Urea If aqueous ammonia, indicate ammonia concentration: 19.5%		
		Turnover rate: Four per year		
	SCR Manufacturer:	Peerless, or equivalent		
	SCR Make:			
	SCR Model:			
	Catalyst dimensions:	Length: 25 ft	Width: 12.5 ft	Height: 10 ft
	Pressure drop across SCR unit: Approximately 10 inches H_2O			
	Pressure drop across ammonia injection grid: Not specified			
	Space velocity (gas flow rate/catalyst volume): 200,000 hr^{-1}			
	Area velocity (gas flow rate/wetted catalyst surface area):			

NEW EQUIPMENT INFORMATION (continued)

Selective Catalytic Reduction Information, if applicable (continued)	**Manufacturer's guarantee:**	Control efficiency: 80 %	Catalyst life:
	Ammonia injection rate: Approximately 40 lb/hr		
	NOx concentration into SCR unit: 25 ppmv @ 15% O_2		
	SO_2 oxidation rate:	SO_3 emissions:	
	Operating temperature range of catalyst: 600-800 F		
	Temperature at which ammonia injection will begin: 600 F		

Oxidation Catalyst Information, if applicable	**If not indicated, please specify units of measurement:**			
	Manufacturer:	Peerless		
	Make:			
	Model:			
	Catalyst dimensions:	Length:	Width:	Height:
	Pressure drop across catalyst:			
	Manufacturer's guarantee:	CO control efficiency: 75%		Catalyst life:
		VOC control efficiency: %		
	Space velocity (gas flow rate/catalyst volume): 80,000-120,000 hr^{-1}			
	Area velocity (gas flow rate/wetted catalyst surface area):			
	Catalyst cell density (cells per square inch):			
	CO concentration into catalyst: 25 ppmv @ 15% O_2			
	VOC concentration into catalyst: ~1 ppmv @ 15% O_2			
	Operating temperature range of catalyst:			

Fuel Data	Fuel Type: Natural gas		**Specify sulfur content if other than 5 gr/100 scf**
	Higher Heating Value: 1020 Btu/scf		Sulfur Content: 0.75 gr/100 scf
	Maximum Fuel Consumption Rate: 0.25 MMscfh each		
	Exhaust Data:	Flow: 390,000 acfm each	

On-line Normalized Emission Rate	**(If corrected to other than 15% O2, indicate at right)**			$\%O_2$
	Specify by units listed below or indicate other values and units at right:			
	NOx	5 ppmv, 1-hr rolling average	lb/MMBtu	
	CO	6 ppmv, 1-hr rolling average	lb/MMBtu	
	VOC	ppmv on a 1-hr rolling avg.	0.0021 lb/MMBtu	(AP-42)
	PM_{10}	ppmv on a 1-hr rolling avg.	0.0066 lb/MMBtu	(AP-42)
	SO_2	ppmv on a 1-hr rolling avg.	lb/MMBtu	2.01 lb/MMscf
	NH_3	10 ppmv on a 1-hr rolling avg.	lb/MMBtu	

NEW EQUIPMENT INFORMATION (continued)

On-line Mass Emission Rate (each turbine)		**lbs/hour**	**lbs/day**	**lbs/qtr**	**tons/year**
Rates based on 8,760 hours/yr operation. VOC rate shown is before catalytic oxidation.	**NOx**	5.7	140		25
	CO	4.2	100		18
	VOC	0.54	12		2.2
	PM_{10}	1.7	40		7.4
	SO_2	0.50	12		2.2
	If applicable, NH_3	7.6	180		33

Startup and Shutdown Mass Emission Rate (each turbine)		**Startup Emissions lbs/hr**	**Shutdown Emissions lbs/hr**
	NOx		
	CO		
	VOC		
	PM_{10}		
	SO_2		

Commissioning Period Mass Emission Rate (each turbine)		**lbs/hr**	**lbs/day**
	NOx		
	CO		
	VOC		
	PM_{10}		
	SO_2		

Operating Parameters	**Operating Hours:**	**hrs/day**	**hrs/qtr**	**hrs/yr**
		24	2,190	8,760
	Startup Data:	**Number of startups per day:**	Two, maximum	
		Number of startups per year:	Estimated up to 50	
		Startup duration:	10 minutes	
	Shutdown Data:	**Number of shutdowns per day:**	Two, maximum	
		Number of shutdowns per year:	Estimated up to 50	
		Shutdown duration:	30 minutes	

NEW EQUIPMENT INFORMATION (continued)

Facility Annual Emissions and Emissions to be Offset Rates based on 8,760 hours/yr operation.		**Facility Annual Emissions [tons/yr]**	**Emissions That Need to be Offset**				
			Q1 [lbs/qtr]	**Q2 [lbs/qtr]**	**Q3 [lbs/qtr]**	**Q4 [lbs/qtr]**	**Annual [tons/yr]**
	NO_x	50					
	CO	36					
	VOC	4.4					
	PM_{10}	14.8					
	SO_2	4.4					

Offsets to be Provided (If Necessary)		**Offset Ratio**	**Offsets Required**				**Source of Offsets**
			Q1 [lbs/qtr]	**Q2 [lbs/qtr]**	**Q3 [lbs/qtr]**	**Q4 [lbs/qtr]**	
	NO_x						[x] State bank* [ ] District bank [ ] Other, specify:
	CO						[x] State bank [ ] District bank [ ] Other, specify:
	VOC						[x] State bank [ ] District bank [ ] Other, specify:
	PM_{10}						[x] State bank [ ] District bank [ ] Other, specify:
	SO_2						[x] State bank [ ] District bank [ ] Other, specify:

Monitoring and Reporting	What is the make/model of the continuous emissions monitoring system (CEMS), if known? Make: Not yet determined Model: _____ The following parameters will be continuously monitored: [x] NOx [x] CO [x] O_2 [x] Fuel flow rate [x] Ammonia injection rate [ ] Other, please specify: _____ Will the CEMS be used to measure both on-line and startup/shutdown emissions? [x] Yes [ ] No

*Note: The initial amount of NOx offsets that can be acquired from the State bank is 21 tons/yr x the applicable offset ratio for each 50 MW of new generating capacity.

ADDITIONAL INFORMATION

1. **Facility Location:** [x] Urban (area of dense population) [ ] Rural (area of sparse population)

   Will the facility be located within 1,000 feet of a school? [ ] Yes [x] No

   (Note: Per Section 42301.9 of the California Health and Safety Code, a "school" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.)

2. **Nearest Receptor:**

   Distance to nearest residence 1,700 feet

   Distance to nearest business 130 feet

   Air Dispersion Modeling Input Data

3. **Stack Parameters:**

   Height: 50 feet Inside diameter: 12 feet

   Is a rain cap present on the exhaust stack? [ ] Yes [x] No

   Direction of exhaust from structure or device: [x] Vertical [ ] Horizontal

   Building dimension data for downwash calculations:

   a) Building height: 40 feet

   b) Minimum horizontal building dimension: 15 feet

   c) Maximum horizontal building dimension: 70 feet

4. Was an ambient air quality impact analysis required for this project? [ ] Yes [x] No

   If Yes, was an ambient air quality impact analysis conducted as required by District rules?[ ] Yes [ ] No

   If Yes, please attach the analysis and provide an electronic version on disk or CD.

5. Was a health risk assessment required for this project? [x] Yes [ ] No

   If Yes, was a health risk assessment conducted as required by District rules? [x] Yes [ ] No

   If Yes, please attach the analysis and provide an electronic version on disk or CD.

6. Please attach a site map for the project.

CERTIFICATION

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are, true, accurate, and complete.

June M. Christman

Responsible Official (Please Print Name)

June M. Christman

Signature of Responsible Official

6-22-01

Date